

Comparison of provisions flagged by Sierra Club / ELPC

1) Condition 7.1.9(g)(ii)(C)

- Coffeen:

C. For each startup when the duration of startup from initial firing of fuel to stable operation of the generating unit at load exceeded 24 hours maintain the following additional records for such startups.

1. A description of the events that led up to the extended startup duration.
2. The reason(s) for the extended startup duration.
3. An explanation of the consequences of the prolonged startup as it relates to the magnitude of emissions, including,
 - I. The actions taken to minimize emissions and the duration of the startup, and
 - II. An explanation whether similar incidents might be prevented in the future and if so, the corrective actions taken or to be taken to prevent similar incidents.

- 2005 Waukegan language:

C. For each startup when the duration of startup from initial firing of fuel to stable operation of the generating unit at load exceeded 24 hours maintain the following additional records for such startups.

1. A description of the events that led up to the extended startup duration.
2. The reason(s) for the extended startup duration.
3. An explanation of the consequences of the prolonged startup as it relates to the magnitude of emissions, including,
 - I. The actions taken to minimize emissions and the duration of the startup, and
 - II. An explanation whether similar incidents might be prevented in the future and if so, the corrective actions taken or to be taken to prevent similar incidents.

- Current Waukegan language:

C. Maintain the following additional records for each startup with a duration exceeding 20 hours for Unit 7 or 23 hours for Unit 8. For purposes of this condition, the duration of the

startup is measured from the initial firing of fuel in an affected boiler to stable operation of the corresponding EGU at load.

- I. A description of the events that led up to the extended startup duration.
- II. The reason(s) for the extended startup duration.
- III. The actions taken to minimize emissions and the duration of the startup.
- IV. An explanation of whether similar incidents might be prevented in the future and, if so, the corrective actions taken or to be taken to prevent similar incidents.

Observations

Became more specific for the different boilers. Hours triggering the recordkeeping requirement tightened. Language appears to say the same thing in different words – do not see anything substantive here, if anything it appears to tighten the Coffeen language.

2) Condition 7.1.10-3(a)(i) / 7.1.12(a)(ii)(E)

- Coffeen:

7.1.10...

The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the opacity from a unit exceeds 30 percent for eight or more 6-minute averaging periods unless the Permittee has begun the shutdown of an affected boiler by such time. (Otherwise, if opacity during an incident only exceeds 30 percent for no more than seven six 6-minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Conditions 7.1.10-1(b) and 7.1.10-2(d).)

7.1.12...

Notify the Illinois EPA at least 15 days prior to changing its procedures associated with reliance on 35 IAC 212.123(b), to allow the Illinois EPA to review the new recordkeeping and data handling practices planned by the Permittee.

- 2005 Waukegan language:

7.1.10...

The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone (voice, facsimile or electronic) for each incident in which the applicable PM emission standard (Condition 7.1.4(b)) could be exceeded or in which the opacity from an affected boiler exceeds

30 percent for five or more 6-minute averaging periods unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, as related to opacity, if opacity during an incident only exceeds 30 percent for no more than five 6-minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Conditions 7.1.10-1(b) and 7.1.10-2(a) and (d).)

7.1.12.....

Notify the Illinois EPA at least 15 days prior to changing its procedures associated with reliance on 35 IAC 212.123(b), to allow the Illinois EPA to review the new recordkeeping and data handling practices planned by the Permittee.

- Current Waukegan language:

7.1.10...

The Permittee shall immediately notify the Illinois EPA's Regional Office, by telephone, facsimile, or electronic mail, for each incident in which the opacity from an affected boiler exceeds 30 percent for eight or more 6-minute averaging periods within a two-hour period unless the Permittee has begun the shutdown of the affected boiler by such time. (Otherwise, if opacity during an incident only exceeds 30 percent for no more than seven 6-minute averaging periods, the Permittee need only report the incident in the quarterly report, in accordance with Condition 7.1.10-2(d).)

7.1.12.....

Notify the Illinois EPA with its next quarterly report if it changes the type of short term opacity data that it is collecting pursuant to Condition 7.1.12(a)(ii)(A) for use in conjunction with reliance on 35 IAC 212.123(b).

Observations

7.1.10...

Though this does clarify the condition (and provide some practical certainty with the permittee), the nature of the clarification is substantive since the "incident" is now being limited to "within a 2 hour period" in the most current language. The language from Coffeen did not specify the duration of these types of incidents. However, the definition of the time period provides certainty and can possibly be viewed as better language for all parties. However, I'm not exactly sure how long boiler malfunctions can run, since if it is possible that this change can deem 15 6-minute averaging periods during a four hour period not required to be reported with the current language, where it would be with the previous language.

Questionable whether this “weakens” the provision. Will have to get more information on whether the 2 hrs was random or based on engineering judgment related to the nature of these events.

7.1.12.....

If facility changes “type of short term opacity data” being collected, then the notification is now allowed within the quarterly report instead of within 15 days of the change. A substantive change that does arguably “weaken” the condition, though not sure how much significant impact this will cause.

3) Condition 7.1.7(a)(ii) / 7.1.7(b)(i)

- Coffeen:

7.1.7(a)...

PM emission measurements shall be made within 90 days of operating an affected boiler for more than 72 hours total in a calendar quarter at a load* that is more than 5 Megawatts or 2 percent higher (whichever is greatest) than the greatest load on the boiler, during the most recent set of PM tests on the affected boiler in which compliance is shown (refer to Condition 7.1.7(e)(iii)(D)), provided, however, that the Illinois EPA may upon request of the Permittee provide more time for testing (if such time is reasonably needed to schedule and perform testing or coordinate testing with seasonal conditions).

* For this purpose, load shall be expressed in terms of either gross megawatt output or steam flow, consistent with the form of the records kept by the Permittee pursuant to Condition 7.1.9(a).

7.1.7(b)...

These measurements shall be performed at the maximum operating loads of the affected boilers and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.

- 2005 Waukegan language:

7.1.7(a)...

PM emission measurements shall be made within 90 days of operating an affected boiler for more than 30 hours total in a calendar quarter at a load* that is more than 2 percent higher than the greatest load on the boiler, during the most recent set of PM tests on the affected boiler in which compliance is shown (refer to Condition 7.1.7(e)(iii)(D)), provided, however, that

the Illinois EPA may upon request of the Permittee provide more time for testing (if such time is reasonably needed to schedule and perform testing or coordinate testing with seasonal conditions).

* For this purpose, load shall be expressed in terms of either gross megawatt output or steam flow, consistent with the form of the records kept by the Permittee pursuant to Condition 7.1.9(a).

7.1.7(b)...

These measurements shall be performed at the maximum operating loads of the affected boilers and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.

- Current Waukegan language:

7.1.7(a)...

PM emission measurements shall be made within 90 days of operating an affected boiler for more than 72 hours total in a calendar quarter at a load* that is more than 10 Megawatts or 5 percent (whichever is greatest) higher than the greatest load on the boiler, during the most recent set of PM tests on the affected boiler in which compliance is shown, provided, however, that the Illinois EPA may upon request of the Permittee provide more time for testing (if such time is reasonably needed to schedule and perform testing or coordinate testing with seasonal conditions). Notwithstanding Condition 5.10, this condition shall take effect after the first complete quarter following the effectiveness of this condition.

* For this purpose, load shall be expressed in terms of either gross megawatt output or steam flow, consistent with the form of the records kept by the Permittee pursuant to Condition 7.1.9(a).

7.1.7(b)...

These measurements shall be performed at 90 percent or better of the seasonal maximum operating loads of the affected boilers or related turbines and other operating conditions that are representative of normal operation. In addition, the Permittee may perform measurements at other operating conditions to evaluate variation in emissions.

Observations

7.1.7(a)...

MW dependent on powerplant and capacity. However, the requirement for testing is now changed to whenever load is over 5% higher than the greatest load tested for that boiler. The

change to 5% is slightly higher than the 2% difference in the Coffeen version. Though only a 3% change, language still would qualify as being substantive and does “weaken” the condition.

7.1.12.....

Language has changed to require the testing to be done at “90% or better..” vs the former language that required testing to be done at “maximum operating loads”. This new condition is still consistent with EPA testing guidance and more practical with actual testing scenarios. Although this change may qualify as being substantive, it is somewhat debatable as to how this “weakens” the results of actual testing that would be done.

4) Condition 7.1.9(c)(ii)

- Coffeen:

Records to address compliance with Conditions 7.1.4(a) and (b), including:

A. Each 6-minute period when the opacity was above the limitation of Condition 7.1.4(a) (30 percent opacity) with date, time, whether it occurred during startup, malfunction, breakdown, or shutdown, and further explanation of the incident.

B. Each three-hour block average period when the average opacity of an affected boiler was above 30 percent, with date, time, measured opacity (three-hour block average), operating condition if startup, malfunction, breakdown, or shutdown, further description of the incident, and whether particulate matter emissions may have exceeded the limit of Condition 7.1.4(b), with explanation.

- 2005 Waukegan language:

Records to address compliance with Conditions 7.1.4(a) and (b), including:

A. Each 6-minute period when the opacity was above the limitation of Condition 7.1.4(a) (30 percent opacity) with date, time, whether it occurred during startup, malfunction, breakdown, or shutdown, and further explanation of the incident.

B. Each hour when the measured opacity of an affected boiler was above the upper bound, as specified above in Condition 7.1.9(c)(ii), with date, time, operating condition if startup, malfunction, breakdown, or shutdown, further explanation of the incident, and whether PM emissions may have exceeded the limit of Condition 7.1.4(b), with explanation.

- Current Waukegan language:

Records to address compliance with Conditions 7.1.4(a) and (b), including:

A. Each 6-minute period when the opacity was above the limitation of Condition 7.1.4(a) (30 percent opacity) with date, time, whether it occurred during startup, malfunction, breakdown, or shutdown, and further explanation of the incident.

B. Each three-hour block averaging period when the average opacity of an affected boiler was above 30 percent, with date, time, measured opacity (three-hour block average), operating condition if startup, malfunction, breakdown, or shutdown, further description of the incident, and, if other information shows that the PM emissions of an affected boiler(s) exceeded or likely exceeded the limit in Condition 7.1.4(b), a description of that information with explanation.

Observations

Change from the original language from 2005, however, no real substantive change from the Coffeen language. Coffeen language changed to a 3-hr block and the current language is consistent with that averaging period. Do not see any substantive changes here.

5) Condition 7.2.8(b)

- Coffeen:

As part of the inspections of Condition 7.2.8(a), the Permittee shall perform observations of the affected operations for visible emissions in accordance with USEPA Test Method 22 to confirm compliance with the requirements of Condition 7.2.4(b). These observations may be scheduled so that only a number of affected operations are reviewed during each inspection, provided however, that all affected operations that are in routine service shall be observed at least once during each calendar year. If visible emissions are observed, the Permittee shall take corrective action within 2 hours to return the status of the operations to no visible emission or observations of opacity by Method 9 shall be conducted within one week as required in Condition 7.2.7(a). [Sections 39.5(7)(a) and (d) of the Act.]

- 2005 Waukegan language:

The Permittee shall perform detailed inspections of the dust collection equipment for the affected operations at least every 15 months while the processes are out of service, with an initial inspection performed before any maintenance and repair activities are conducted during the period the process is out of service and a follow-up inspection performed after any such activities are completed. [Sections 39.5(7)(a) and (d) of the Act]

- Current Waukegan language:

As part of the inspections of Condition 7.2.8(a), the Permittee shall perform observations of the affected operations for visible emissions in accordance with 35 IAC 212.107 to demonstrate compliance with the requirements of Condition 7.2.4(b), unless the Permittee elects to perform Reference Method 9 observations in accordance with Condition 7.2.7(a). These observations may be scheduled so that only a number of affected operations are reviewed during each inspection, provided, however, that all affected operations that are in routine service shall be observed at least once during each calendar year. If visible emissions are observed, the Permittee shall take corrective action within 2 hours to return the status of the operations to no visible emission or shall conduct observations of opacity by Reference Method 9 within one week in accordance with Condition 7.2.7(a). If the Permittee performs Reference Method 9 observations under this Condition 7.2.8(b), such observations are not subject to the notice requirements of Condition 7.2.7(a)(iii) through (v) [Sections 39.5(7)(a) and (d) of the Act].

Observations

The condition is for the most part consistent with the Coffeen changes except where it is further specified within the new Waukegan language that the Method 9 observation is not subject to the notice requirements of condition 7.2.7.(a). This clarifies the condition since the Method 9 reading would happen within a week of observation of the exceedance and since the requirements of 7.2.7(a) are intended for a preplanned Method 9 reading that is not likely involving an exceedance. A clarifying change I do not see as being substantive.